I CLAIM:

1. A method of dynamically controlling a bias point of a photodiode of an optical receiver, the method comprising iteratively repeating steps of:

detecting a performance parameter indicative of an eye opening of an optical signal received by the optical receiver; and

adjusting a bias voltage of the photodiode so as to optimize a value of the detected performance parameter.

2. A method as claimed in claim 1, wherein the performance parameter comprises any one of:

an eye opening ratio;

an Optical signal to Noise ratio (OSNR);

an eye quality (IQ); and

a bit error rate.

3. A method as claimed in claim 1, wherein the step of adjusting the bias voltage comprises steps of:

comparing a current value to a previous value of the performance parameter;

calculating an adjustment step size and direction based on the comparison result;

calculating an updated bias setting value based on a current value of the bias setting and the calculated adjustment step size and direction; and

generating the bias voltage based on the updated bias setting value.

4. A method as claimed in claim 3, wherein the step of calculating an adjustment step direction comprises a step of reversing the step direction if the current value of the performance parameter is less than the previous value.

5. A method as claimed in claim 3, wherein the step of calculating an adjustment step size comprises a step of scaling the step size with a relative magnitude of the current value of the performance parameter.

6. A controller for dynamically optimizing a bias point of a photodiode of an optical receiver, the controller comprising:

detector means for detecting a performance parameter indicative of an eye opening of an optical signal received by the optical receiver; and

a processor for calculating a bias point that optimizes a value of the detected performance parameter.

7. A controller as claimed in claim 6, wherein the performance parameter comprises any one of:

an eye opening ratio;

an Optical signal to Noise ratio (OSNR);

an eye quality (IQ); and

a bit error rate.

8. A controller as claimed in claim 7, wherein the detector means comprises a clock and data recovery (CDR) circuit of the receiver.

9. A controller as claimed in claim 7, wherein the detector means comprises a detector circuit associated with a clock and data recovery (CDR) circuit of the receiver.

10. A controller as claimed in claim 6, wherein the processor operates under control of software code adapted to:

compare a current value of the performance parameter to a previous value;

calculate an adjustment step size and direction based on the comparison result; and

calculate an updated bias setting value based on a current value of the bias setting and the calculated adjustment step size and direction.

11. An optical receiver for receiving an optical communications signal, the receiver comprising:

a photodiode for converting the optical communications signal into a corresponding electrical signal;

detector means responsive to the electrical signal for detecting a performance parameter indicative of an eye opening of the optical signal;

a processor for calculating a bias point of the photodiode that optimizes a value of the detected performance parameter; and

a bias generator for supplying a bias signal to the photodiode based on the calculated bias point.

12. A receiver as claimed in claim 11, wherein the performance parameter comprises any one of:

an eye opening ratio;

an Optical signal to Noise ratio (OSNR);

an eye quality (IQ); and

a bit error rate.

13. A receiver as claimed in claim 12, wherein the detector means comprises a clock and data recovery (CDR) circuit of the receiver.

14. A receiver as claimed in claim 12, wherein the detector means comprises a detector circuit associated with a clock and data recovery (CDR) circuit of the receiver.

15. A receiver as claimed in claim 11, wherein the processor operates under control of software code adapted to:

compare a current value of the performance parameter to a previous value;

calculate an adjustment step size and direction based on the comparison result; and

calculate an updated bias setting value based on a current value of the bias setting and the calculated adjustment step size and direction.